

Δ^6 desaturase.

8. (Amended) A polypeptide according to [any preceding claim] claim 1, which occurs naturally in an organism that does not accumulate GLA.

9. (Amended) A polypeptide according to [any preceding claim] claim 1, which occurs naturally in a eukaryote.

A1
Amended.
10. (Amended) A polypeptide according to [any preceding claim] claim 1, which occurs naturally in an animal.

11. (Amended) A polypeptide according to [any preceding claim] claim 1, which occurs naturally in a nematode.

12. (Amended) A polypeptide according to [any preceding claim] claim 1, which occurs naturally in *C. elegans*.

14. (Amended) A polypeptide according to [any preceding claim] claim 1, when covalently linked to another moiety.

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0022000
15. (Amended) The use of a polypeptide according to [any of claims 1 to 14] claim 1 in raising or selecting antibodies.

16. (Amended) The use of a polypeptide according to [any of claims 1 to 14] claim 1 as a marker for transformation.

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18. (Amended) An antibody or a derivative thereof which binds to a polypeptide according to [any of claims 1 to 14] claim 1.

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F.3
20. (Amended) A method for assessing whether or not an organism has a polypeptide according to [any of claims 1 to 14] claim 1, comprising determining whether or not the organism has a polypeptide that binds to an antibody or a derivative thereof according to claim 18.

22. (Amended) A method according to claim 20 [or 21] preferred *in vitro*.

A5 23. (Amended) A polypeptide according to [any of claims 1 to 14] claim 1, for use in medicine.

24. (Amended) The use of a polypeptide according to [any of claims 1 to 14] claim 1 in the preparation of a medicament for treating a disorder involving a deficiency in GLA in a metabolite derived *in vivo* from GLA.

26. (Amended) The use according to claim 23, [24, or 25] wherein the disorder is eczema, mastalgia, hypercholesterolemia, atherosclerosis, coronary disease, diabetic neuropathy, viral infections, acne, cirrhosis, hypertension and cancer.

A6 27. (Amended) A method of making GLA comprising using a polypeptide according to [any one of claims 1 to 14] claim 1 to convert linoleic acid to GLA.

28. (Amended) A method of making OTA comprising using a polypeptide according to [any one of claims 1 to 14] claim 1 to convert α linoleic acid to OTA.

29. (Amended) A nucleic acid molecule which:

- a) codes for a polypeptide according to [any of claims claim 1 to 14] claim 1,
- b) is the complement of a nucleic acid molecule as defined in a) above, or
- c) hybridises to a nucleic acid molecule as defined in a) or b) above.

A7 cm.t 33. (Amended) A host according to claim 31 [or claim 32], which is oil seed rape, sunflower, cereals including maize, tobacco, legumes including peanut and soybean, safflower, oil palm, coconut and other palms, cotton, sesame, mustard, linseed, castor, borage and evening primrose; or which is propagating material for any of the aforesaid.

34. (Amended) A method for obtaining a polypeptide according to [any of claims 1 to 14] claim 1, comprising incubating a host according to [any of claims 31 to 33] claim 31 under